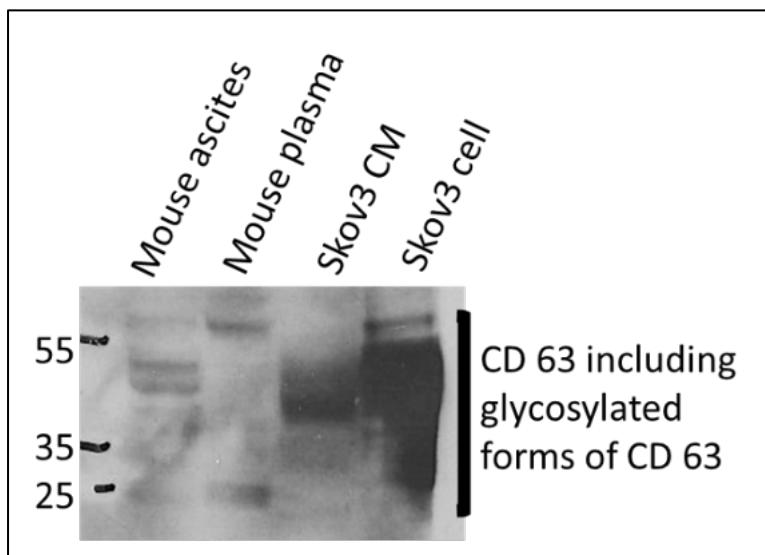
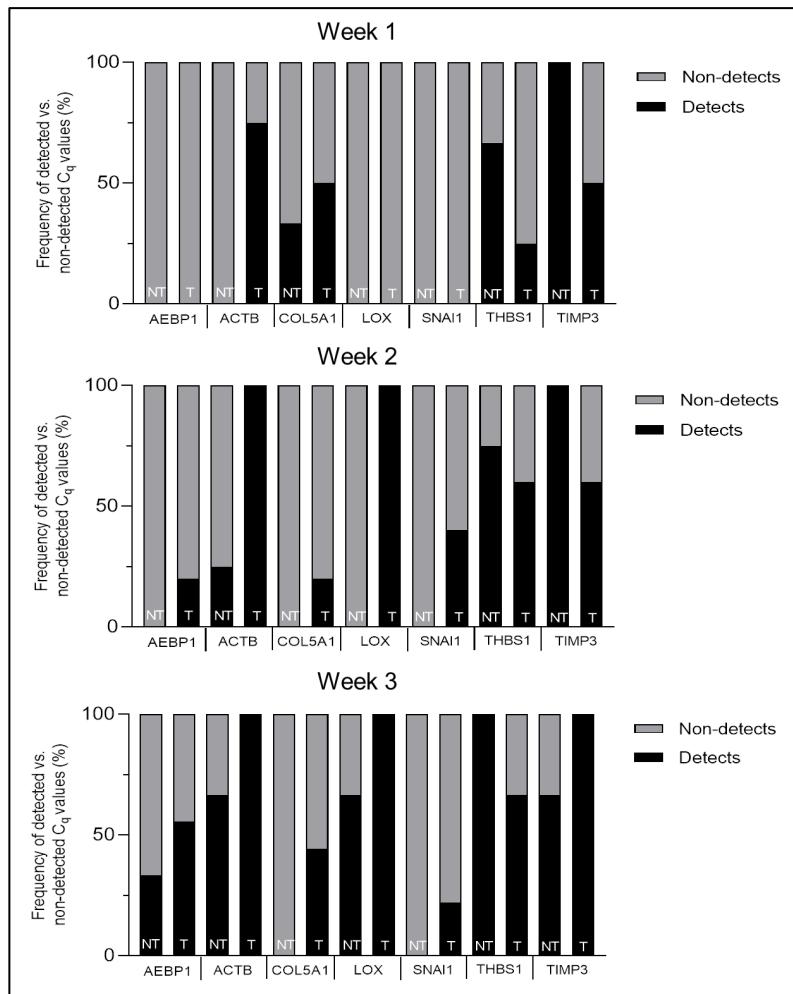


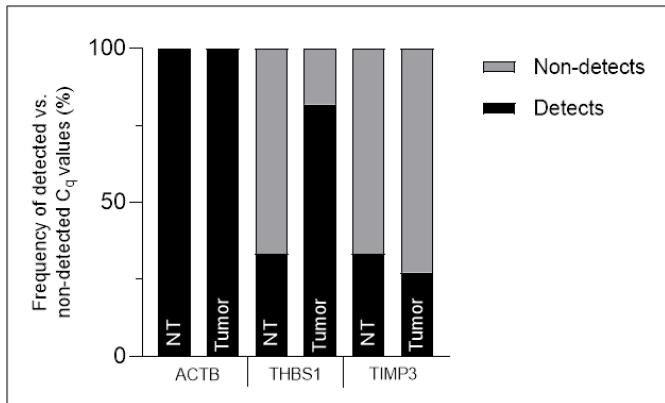
Supplemental figure and table captions.



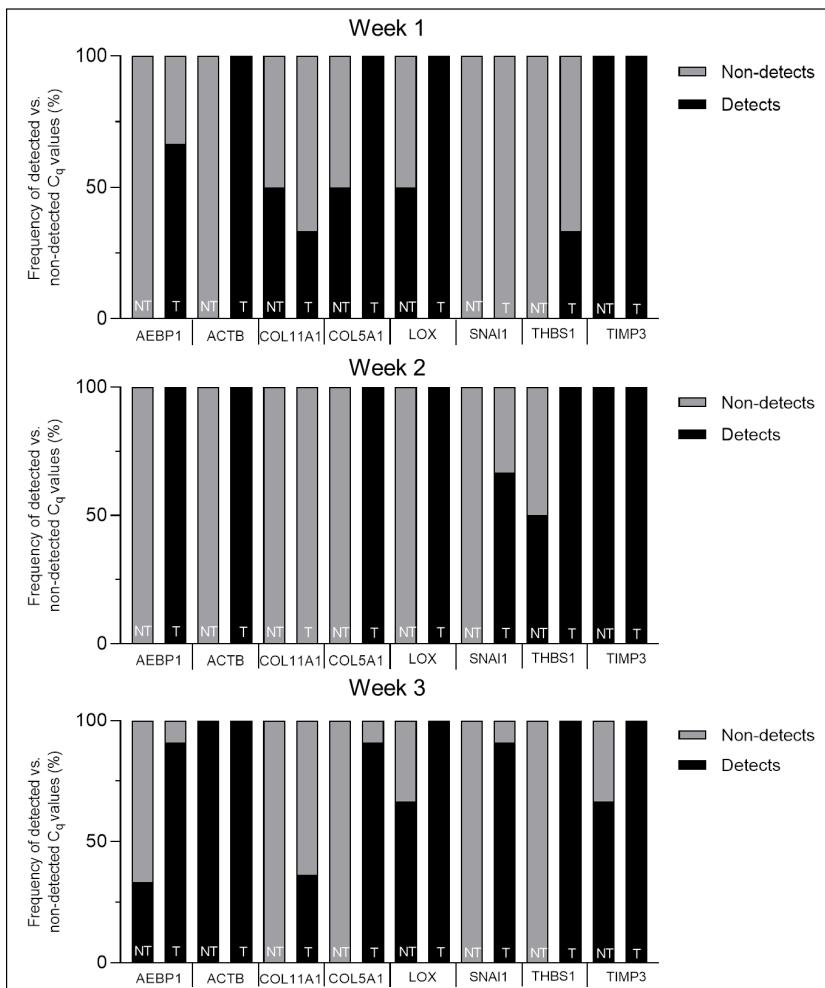
Supplemental figure 1: Expression of CD63 in exosomes isolated from mouse ascites (lane1), plasma (lane2) and SKOV3 cell culture medium (lane 3) and cell lysate (lane 4).



Supplemental figure 2: Frequency plots of detected vs. non-detected C_q values in plasma-derived sEV samples.



Supplemental figure 3: Frequency plots of detected vs. non-detected C_q values in human plasma-derived sEV samples.



Supplemental figure 4: Frequency plots of detected vs. non-detected C_q values in ascites-derived sEV samples.

Supplemental table 1: TaqMan gene expression assays used for qRT-PCR purchased from Thermo Fisher.

Gene Name	Gene expression assay ID
<i>ACTB</i>	Hs99999903_m1
<i>AEBP1</i>	Hs00937468_m1
<i>COL5A1</i>	Hs00609088_m1
<i>COL11A1</i>	Hs01097664_m1
<i>GAPDH</i>	Hs02786624_g1
<i>LOX</i>	Hs00942480_m1
<i>NECTIN4</i>	Hs00363974_m1
<i>POSTN</i>	Hs01566750_m1
<i>SNAI1</i>	Hs00195591_m1
<i>THBS1</i>	Hs00962908_m1
<i>TIMP3</i>	Hs00165949_m1

Supplemental table 2: Datasets used for OvMARK genetic analysis.

Gene Datasets	
GSE26712	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE26712
GSE13876	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE13876
GSE14764	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE14764
GSE30161	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE30161
GSE19161	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19161
GSE19829	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19829
GSE26193	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE26193
GSE18520	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE18520
GSE31245	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE31245
GSE9899	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE9899
GSE17260	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE17260
GSE32062	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE32062
TCGA	https://www.cancer.gov/about-nci/organization/ccg/research/structural-genomics/tcga

Supplemental table 3: Differential expression of individual genes in the 10-gene panel correlates with disease-free survival. The OvMark algorithm was used to determine hazard ratios (>1 correlates with poor outcome, <1 correlates with good outcome-blue) and to show statistical significance between high and low expression.

	Expression	
	Hazard ratio	p value
<i>ACTB</i>	1.115	0.0356
<i>AEBP1</i>	1.238	4.09E-5
<i>COL5A1</i>	1.229	0.00502
<i>COL11A1</i>	1.276	9.19E-4
<i>LOX</i>	1.234	0.0042
<i>NECTIN4</i>	1.03	0.7211
<i>POSTN</i>	1.341	1.55E-08
<i>SNAIL1</i>	0.9676	0.657
<i>THBS1</i>	1.278	8.39E-4
<i>TIMP3</i>	1.339	1.89E-15

Supplemental table 4: Differential expression of individual genes in the 10-gene panel correlates with disease-free survival in patients with serous ovarian cancer and endometrioid cancer. The OvMark algorithm was used to determine hazard ratios (>1 correlates with poor outcome, <1 correlates with good outcome-blue) and to show statistical significance between high and low expression.

	Serous		Endometrioid	
	Hazard ratio	p value	Hazard ratio	p value
<i>ACTB</i>	1.202	0.0430	1.095	0.893
<i>AEBP1</i>	1.254	0.00447	1.327	0.673
<i>COL5A1</i>	1.306	0.00337	1.719	0.415
<i>COL11A1</i>	1.337	0.00146	1.181	0.814
<i>LOX</i>	1.279	0.000134	0.5114	0.173
<i>NECTIN4</i>	1.039	0.672	4.401	0.127
<i>POSTN</i>	1.394	0.00271	1.957	0.337
<i>SNAII</i>	1.007	0.894	1.148	0.837
<i>THBS1</i>	1.332	0.001676	0.774	0.7172
<i>TIMP3</i>	1.399	0.000228	1.24	0.761

Supplemental table 5: Differential expression of individual genes in the 10-gene panel correlates with disease-free survival in various stages of ovarian cancer development. The OvMark algorithm was used to determine hazard ratios (>1 correlates with poor outcome, <1 correlates with good outcome-blue) and to show statistical significance (red) between high and low expression.

	grade1		grade2		grade3	
	Hazard ratio	p value	Hazard ratio	p value	Hazard ratio	p value
<i>ACTB</i>	1.311	0.326	1.094	0.516	1.029	0.726
<i>AEBP1</i>	1.617	0.222	1.2	0.185	1.239	0.00891
<i>COL5A1</i>	1.365	0.421	1.151	0.307	1.280	0.0338
<i>COL11A1</i>	1.815	0.116	1.163	0.273	1.388	0.0474
<i>LOX</i>	1.856	0.104	1.081	0.571	1.242	0.0626
<i>NECTIN4</i>	1.089	0.824	0.9758	0.860	0.9641	0.753
<i>POSTN</i>	2.801	0.00464	1.267	0.0843	1.433	0.00203
<i>SNAII</i>	1.379	0.402	1.102	0.482	0.9713	0.802
<i>THBS1</i>	1.782	0.1623	1.205	0.1747	1.272	0.03815
<i>TIMP3</i>	2.385	0.0181	1.269	0.0823	1.279	0.0339

Supplemental table 6: Patient characteristics.

	Non-metastatic (n=6)	Metastatic (n=5)	Overall (n=11)
Age, years (median, range)	56 (50-77)	56.5 (38-79)	56 (38-79)
Histology			
Papillary serous	1	3	4
Clear cell	2	1	3
Endometrioid	2	0	1
Mixed	1	1	2
Differentiation			
Well or moderately	5	1	6
Poorly	1	1	2
Unknown	1	3	4
Organ involvement			
Ovary (bilateral)	1	4	5
Ovary (unilateral)	5	1	6
Tubal involvement	1	4	5
Peritoneum	1	5	6
Uterus	1	2	3
Additional organs	0	1	1